



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,010	03/07/2005	Barbara Hildegard Pause		1121

7590 02/11/2008
Barbara Pause
7161 Christopher Court
Longmont, CO 80503

EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

02/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,010	Applicant(s) PAUSE, BARBARA HILDEGARD	
	Examiner Ula C. Ruddock	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 19, 2007, has been entered.
2. The Examiner has carefully considered Applicant's amendments and accompanying remarks filed November 19, 2007. The 112, 2nd paragraph rejections have been withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 1, 4, 5, 7, 13-15, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Worley et al. (US 2003/0054141). Worley et al. disclose a coated article having enhanced reversible thermal properties. The coated article may be used in apparel and footwear (abstract). The substrate of the article may be a nonwoven fabric or a film [0016]. The coating may be formed from a polymeric material that has a temperature regulating material dispersed therein [0017]. The temperature regulating material will comprise one or more phase change materials [0032]. Examples of the phase change materials include hydrocarbons such as those listed on page 2 of the present specification (i.e. heneicosane, eicosane, nonadecane, octadecane, heptadecane, and hexadecane) and salt hydrates such as those listed on page 3 of the present

specification (i.e. calcium chloride hexahydrate, lithium nitrate trihydrate, and sodium sulfate decahydrate) [0035 and Table 1]. These phase change materials having melting points ranging from 18.2-40.5°C. Worley et al. specifically disclose embodiments wherein the phase change material is non-encapsulated [0045].

Regarding Applicant's newly added amendment requiring the film to be impermeable, Worley discloses that it is well known to have continuous (i.e. impermeable) coatings containing phase change material that is to be applied to fabrics to provide enhanced reversible thermal properties to the fabrics themselves [0003]. Therefore, Worley et al. reads on the claimed invention.

Rejection is maintained.

Claim Rejections - 35 USC § 102/103

5. Claim 21 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Worley et al. (US 2003/0054141). Worley et al. disclose the claimed invention except for the specific teaching that the article has a latent heat storage capacity between 40 KJ and 60 kJ.

Although Worley et al. do not explicitly teach the claimed latent heat storage capacity, it is reasonable to presume that this property is inherent to the Worley et al. invention. Support for said presumption is found in the use of like materials (i.e. nonwoven article comprising hydrocarbon or salt hydrate phase change materials dispersed within a polymeric material, wherein the phase change materials have a melting point of 18.2-40.5°C). The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In addition, the presently claimed property of a latent

heat storage capacity between 40 KJ and 60 kJ would obviously have been present once the Worley et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

Rejection is maintained.

Claim Rejections - 35 USC § 103

6. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley et al. (US 2003/0054141), as set forth above. Worley et al. disclose the claimed invention except for the different configurations claimed in the present invention (i.e. two barrier films and an inner fabric or a fabric and film). It would have been obvious to one having ordinary skill in the art to have used an additional film layer or an additional fabric layer in the article of Worley, motivated by the desire to create an article with improved flexibility and strength.

Rejection is maintained.

7. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley et al. (US 2003/0054141), as shown above, in view of Buckley et al. (US 2002/0164474). Worley et al. disclose the claimed invention except for the teaching that the polymeric material which contains the phase change material is an elastomeric material.

Buckley disclose composite material useful in making garments such as socks, gloves, face mask, wet suits, or boot liners (abstract). The material comprises phase change material that has been incorporated into a flexible matrix [0012]. Suitable matrix materials include thermoplastic elastomers [0043]. It would have been obvious to one having ordinary skill in the art to have used

Buckley's thermoplastic elastomer as the polymer matrix material of Worley et al., motivated by the desire to create a material that has both improved strength and flexibility.

Rejection is maintained.

Response to Arguments

8. Applicant's arguments filed November 19, 2007, have been fully considered but they are not persuasive for the reasons set forth. Applicant argues that Worley et al. do not disclose an "impermeable barrier film." However, Worley discloses that it is well known to have continuous (i.e. impermeable) coatings containing phase change material that is to be applied to fabrics to provide enhanced reversible thermal properties to the fabrics themselves [0003]. Therefore, Worley et al. reads on the claimed invention and the rejection is maintained.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/U. C. R./

/Ula C Ruddock/
Primary Examiner, Art Unit 1794